

CLAIMS:

1. An air-bag arrangement in a motor vehicle to provide protection for the
5 occupant of at least one seat, the or each seat being associated with two air-bag
units; one air-bag unit containing an air-bag to be deployed to occupy a space
on the inboard side of the seat and the other air-bag unit containing an air-bag
to be deployed to occupy a space on the outboard side of the seat, there being a
sensor and control arrangement to sense a side impact and to determine which
10 side of the vehicle has been impacted, and to generate actuation signals capable
of actuating only the air-bag unit closest to the point of impact.
2. An air-bag arrangement according to claim 1, configured to provide
protection for the occupants of two said seats arranged adjacent one another,
15 wherein the sensor and control arrangement is configured to generate actuation
signals capable of actuating only the air-bag unit associated with the first seat
closest to the point of impact, and only the air-bag unit of the second seat
closest to the point of impact.
- 20 3. An arrangement according to Claim 1 or Claim 2 wherein at least one
seat is provided with a sensor to sense an occupant in the seat, the sensor
enabling actuation of the air-bag units associated with that seat in response to
the actuation signal from the sensor and control unit.
- 25 4. An arrangement according to any preceding Claim wherein at least one
air-bag unit for the or each seat is mounted in the back-rest of the seat.

5. An arrangement according to Claim 4 wherein the said one unit in the or each seat is on the inboard side of the seat.
6. An arrangement according to any one of the preceding Claims wherein
5 both air-bag units associated with the or each seat are mounted in the back-rest of the seat.
7. An arrangement according to any one of Claims 1 to 5 wherein at least one air-bag unit associated with the or each seat is mounted in an adjacent pillar
10 of the motor vehicle.
8. An arrangement according to any one of the preceding Claims wherein the or each said seat is provided with a three-point safety-belt.
- 15 9. An arrangement according to Claim 8 wherein the or each safety-belt is provided with a pretensioner.
10. An arrangement according to any preceding Claim, wherein the inboard side of the or each seat is associated with a support element, the support
20 element being configured to extend inboard of the inflated inboard air-bag so as to provide lateral support to at least part of the inflated air-bag.
11. An arrangement according to Claim 10, wherein the support element is mounted in or on the same seat as the inboard air-bag that it supports.
- 25 12. An arrangement according to Claim 10 or Claim 11, wherein said support element is moveable upon actuation of the air-bag on the inboard side of the seat, from an initial position to an operative position, the airbag being

configured to extend to an operative position, the support element being configured to extend inboard of the inflated airbag when in said operative position.

- 5 13. An arrangement according to Claim 12, wherein said support element is resiliently deformable and configured, when in said operative position, to yield under a force exerted thereon by the weight of an occupant of the seat in a crash, thereby absorbing energy.
- 10 14. An arrangement according to Claim 12 or Claim 13, wherein said support element is configured to move from said initial position to said operative position in a generally forwards direction relative to said back-rest.